# GOVERNMENT OF INDIA
# WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION
# LOK SABHA

UNSTARRED QUESTION NO:1296
ANSWERED ON:09.02.2017
Shortage of Water in States
Reddy Shri Midhun

**Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION be pleased to state:**

(a) whether certain States especially Andhra Pradesh is facing problem on the water front at present;
(b) if so, the details thereof and the reasons therefor; and
(c) the steps the Government is taking in this regard?

## Answer

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION
(DR. SANJEEV KUMAR BALYAN)

(a) & (b) The average annual water availability of any region or country is largely dependent upon hydro-meteorological and other factors and is generally constant. As per National Commission on Integrated Water Resources Development (NCIWRD) report, the total water availability of India received through precipitation is about 4000 Billion cubic meter (BCM) per annum. After evaporation, 1869 BCM water is available as natural runoff. Due to topographical and other factors, the utilizable water availability is limited to 1123 BCM per annum, comprising of 690 BCM of surface water and 433 BCM of replenishable ground water.

In view of growing population, the per capita water availability in India is reducing progressively. The average annual per capita water availability in the years 2001 and 2011 was assessed as 1820 cubic meters and 1545 cubic meters respectively which may reduce further to 1341 and 1140 in the years 2025 and 2050 respectively.

Annual per-capita water availability of less than 1700 cubic meters is considered as water stressed condition, whereas annual per-capita water availability below 1000 cubic meters is considered as a water scarcity condition. Due to temporal and spatial variability of rainfall, many regions / states receive less than average rainfall and may be considered as water stressed or water scarce.

River basin being the natural hydrological unit, total water resources availability is assessed river basin wise. The details of the basin-wise average annual water resources availability (or potential) assessed by Central Water Commission in 1993 is at Annexure I. Andhra Pradesh is co-basin state for Godavari and Krishna river basins.
Central Water Commission under this Ministry monitors live storage status of 91 major reservoirs of the country and issues weekly bulletins. As per bulletin dated 02.02.2017 there is a live storage of 14.19 BCM in 32 reservoir under CWC monitoring in the southern region comprising states of Andhra Pradesh, Telangana, Karnataka, Kerala and Tamilnadu. This live storage is 28% of total storage capacity. During the current period last year, the live storage was 27% whereas average storage of the last ten years for the corresponding period was 46%. Thus storage during the current period is better than corresponding period of last year but lower than the average storage of the last ten years during corresponding period.
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Further, the Ground Water Resources Assessment of the country is carried out at periodical interval jointly by Central Ground Water Board (CGWB) and State Ground Water Department. As per the latest assessment (2011), out of 6607 assessment units ( Blocks/ Mandals / Talukas/ Firkas/ Distrcits), 1071 assessment units in various states including Andhra Pradesh have been categorized as 'Overexploited' where annual groundwater withdrawal is more than annual net groundwater availability and there is significant long term decline in ground water level. The details are given in Annexure II. Reasons for depletion of ground water resources are growing population, urbanization and industrialization.

(c) In India, water being state subject, measures for water conservation and management are taken by respective state Governments depending on their priority and resources. In order to supplement the efforts of state governments, Central Government provides technical and financial assistance through various schemes and programmes.

Some of such interventions are as follows:

â€¢ The CGWB under the Ministry of Water Resources, RD & GR has carried out Demonstrative Rain Water Harvesting and Artificial Recharge Projects during XI Plan under the Central Sector Scheme of "Ground Water Management & Regulation" in priority areas. The projects aimed at providing technical assistance to State Governments by demonstration of rainwater harvesting & recharge technology for replicating the same in similar hydrogeological environment. During the XI Plan, 133 demonstrative recharge projects were approved for construction of artificial recharge structures in 22 States.

â€¢ A conceptual document entitled "Master Plan for Artificial Recharge to Ground Water in India" has been prepared by CGWB during the year 2013, which envisages construction of different types of Artificial Recharge and Rainwater Harvesting structures in the Country in an area of 9,41,541 square km by harnessing surplus monsoon runoff to augment ground water resources. The Master Plan has been circulated to all State Governments for implementation.

â€¢ The National Water Policy (2012) has been formulated by Ministry of Water Resources, RD & GR which inter-alia advocates conservation, promotion and protection of water and highlights the need for augmenting the availability of water through direct use of rainfall. The National Water Policy (2012) has been forwarded to all State Governments/ UTs and concerned Ministries/ Departments of Central Government for appropriate action.

â€¢ National Water Mission (NWM), has also been set up under National Action Plan on Climate Change. Goals of NWM include "Promotion of citizen and state actions for water conservation, augmentation and preservation" and "Increasing water use efficiency by 20%".

â€¢ Central Government has also launched Pradhan Mantri Krishi Sinchai Yojana (PMKSY) with the vision of extending the coverage of irrigation 'Har Khet ko Pani' and improving water use efficiency 'More crop per drop' in a focused manner with end to end solution on source creation, distribution, management, field application and extension activities. Under PMKSY-AIBP 99 priority projects have been identified for faster completion of ongoing Major and Medium Irrigation which includes eight such projects in Andhra Pradesh.

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Annexure-I

(Annexure referred to in reply to parts (a) & (b) of the Lok Sabha Unstarred Question No. 1296 to be answered on 09.02.2017 regarding "Shortage of Water in States")

WATER RESOURCES AVAILABILITY (POTENTIAL) OF RIVER BASINS OF INDIA
(YEAR 1993)

| Sl. No. | River Basin | Average Water Resources Potential (In Billion Cubic Meter) |
|---|---|---|
| 1 | Indus | 73.3 |
| 2 | Ganga-Brahmaputra-Meghna | |
| (a) | Ganga | 525.0 |
| (b) | Brahmaputra | 537.2 |
| (c) | Barak & others | 48.4 |
| 3 | Godavari | 110.5 |
| 4 | Krishna | 78.1 |
| 5 | Cauvery | 21.4 |
| 6 | Subernarekha | 12.4 |
| 7 | Brahmani-Baitarni | 28.5 |
| 8 | Mahanadi | 66.9 |
| 9 | Pennar | 6.3 |
| 10 | Mahi | 11.0 |
| 11 | Sabarmati | 3.8 |
| 12 | Narmada | 45.6 |
| 13 | Tapi | 14.9 |
| 14 | West Flowing Rivers from Tapi to Tadri | 87.4 |
| 15 | West Flowing Rivers from Tadri to Kanyakumari | 113.5 |
| 16 | East Flowing Rivers between Mahanadi and Pennar | 22.5 |
| 17 | East Flowing Rivers between Pennar & Kanyakumari | 16.5 |
| 18 | West Flowing Rivers of Kutch and Saurashtra including Luni | 15.1 |
| 19 | Area of Inland Drainage in Rajasthan | Negligible |
| 20 | Minor Rivers draining into Myanmar (Burma) and Bangladesh | 31.0 |
| Total | | 1,869.4 |

Annexure − II
(Annexure referred to in reply to parts (a) & (b) of the Lok Sabha Unstarred Question No. 1296 to be answered on 09.02.2017 regarding "Shortage of Water in States")

OVER-EXPLOITED BLOCKS/ MANDALS/ TALUKAS IN INDIA
(As on March 2011)

| Sl. No. | States / Union Territories | Over-exploited Assessment units (Nos.) |
|---|---|---|
| States | | |
| | Andhra Pradesh | 41 |
| | Chattisgarh | 1 |
| | Delhi | 18 |
| | Gujarat | 24 |
| | Haryana | 71 |
| | Himachal Pradesh | 1 |

Jharkhand 6
Karnataka 63
Kerala 1
Madhya Pradesh 24
Maharashtra 10
Punjab 110
Rajasthan 172
Tamil Nadu 374
Telengana 42
Uttar Pradesh 111
Total States 1069
Union Territories
Daman & Diu 1
Pondicherry 1
Total Uts 2
Grand Total 1071